



PATENT
3531-0103P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: Paul R. BERGER et al. Conf.: 8252
Appl. No.: 09/934,334 Filed: August 21, 2001
Group: 2811 Examiner: Donghee KANG
For: SI-BASED RESONANT INTERBAND TUNNELING DIODES AND
METHOD OF MAKING INTERBAND TUNNELING DIODES

LETTER REQUESTING INITIALED PTO 1449 FORMS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May 17, 2004

Sir:

In reviewing the above-captioned application file, the undersigned has noted that acknowledgment was not received for the PTO 1449 Form filed with the Information Disclosure Statement on August 21, 2001.

Accordingly, a copy of the PTO Form 1449 not acknowledged is attached hereto. The Examiner is respectfully requested to return the initialed form to the undersigned as soon as possible.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By Clint Dordani 4/035
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MKM/CAG:tm
3531-0103P

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Attachments



Form PTO-1449	ATTY DOCKET NO. 3531-0103P	APPLICATION NO. New
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	APPLICANT Paul R. BERGER et al	
	FILING DATE August 21, 2001	GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

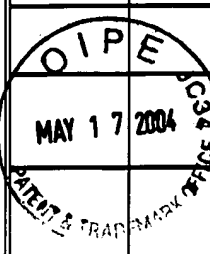
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	Wang YH et al, "RESONANT TUNNELING DIODE IN MBE-GROWN DELTA-DOPED GAAS", Abstract, Electronic Letters, August 29, 1991
	Wang YH et al, "HOMOTYPE RESONANT TUNNELING STRUCTURES IN MOLECULAR-BEAM EPITAXIALLY GROWN DELTA-DOPES GAAS", Journal of Vacuum Science & Technology B, March-Apr 1992
	A. SEABAUGH et al, "TRANSISTORS AND TUNNEL DIODES FOR ANALOG/MIXED-SIGNAL CIRCUITS AND EMBEDDED MEMORY", Raytheon Systems Company
	J. SHEN et al, "STATIC RANDOM ACCESS MEMORIES BASED ON RESONANT INTERBAND TUNNELING DIODES IN THE InAs/GaSb/AlSb Material System", IEE Electron Device Letters, Vol. 16, No. 5, May 1995
	J.P.A. VAN Der WAGT et al, "RTD/HFET Low Standby Power SRAM Gain Cell", IEEE Electron Device Letters, Vol. 19, No.1, January 1998
	V. M. FRANKS et al, "AN ALLOY PROCESS FOR MAKING HIGH CURRENT DENSITY SILICON TUNNEL DIODE JUNCTIONS", Solid-State Electronics, Vol. 8-pps. 343-344, 01-5-64
	R. DUSCHL et al, "HIGH ROOM TEMPERATURE PEAK-TO-VALLEY CURRENT RATIO IN SI BASED ESAKI DIODES", Electronics Letters, Vol. 35, No. 13, 05-24-99
	R. DUSCHEL et al, "EPITAXIALLY GROWN SI/SiGe INTERBAND TUNNELING DIODES WITH HIGH ROOM-TEMPERATURE PEAK-TO-VALLEY RATIO", Applied Physics Letters, Vol. 76, Number 7, February 14, 2000
	R. TSU et al, "TUNNELING IN A FINITE SUPERLATTICE", Applied Physics Letters, Vol. 22, No. 11, June 1973
	L. L. Chang et al, "RESONANT TUNNELING in SEMICONDUCTOR DOUBLE BARRIERS", Applied Physics Letters, Vol. 24, No. 12, June 15, 1974
	Ulf GENNSER et al, "RESONANT TUNNELING OF HOLES THROUGH SILICON BARRIERS", J. Vac. Sci. Technol. B, Vol. 8, No. 2, Mar/Apr 1990

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

		K. ISMAIL et al, "ELECTRON RESONANT TUNNELING IN Si/SiGe DOUBLE BARRIER DIODES", Applied Physics Letters, 59, (8), August 19, 1991
		Mark, SWEENEY et al, "RESONANT INTERBAND TUNNEL DIODES", Applied Physics Letters, 54 (6), February 6, 1989
		H. H. TSAI et al, "P-N DOUBLE QUANTUM WELL RESONANT INTERBAND TUNNELING DIODE WITH PEAK-TO-VALLEY CURRENT RATIO OF 144 AT ROOM TEMPERATURE", IEEE ELECTRON DEVICE LETTERS, Vol. 15, No. 9, September, 1994
		D. J. DAY et al, "EXPERIMENTAL DEMONSTRATION OF RESONANT INTERBAND TUNNEL DIODE WITH ROOM TEMPERATURE PEAK-TO-VALLEY CURRENT RATIO OVER 100", J. Appl. Phys. 73, (3), February 1, 1993
		C. C. YANG et al, "THE STUDY OF GaAs/InGaAs δ -DOPING RESONANT INTERBAND TUNNELING DIODE", Materials Science and Engineering B35 (1995) 259-262
		H. J. GOSSMANN et al, "DELTA DOPING IN SILICON", Critical Reviews in Solid State and Materials Sciences, 18(1):1-67 (1993)
		G. E. BECKER et al, "RECTOR DOPANTS IN SILICON MOLECULAR-BEAM EPITAXY", Journal of Applied Physics, Vol. 48, No. 8, August, 1977
		J. KNALL et al, "INDIUM INCORPORATION DURING THE GROWTH OF (100) Si BY MOLECULAR BEAM EPITAXY: SURFACE SEGREGATION & RECONSTRUCTION", Applied Physics Letters 45 (6), September 15, 1984
		T. E. JACKMAN et al, "ANNEALING STUDIES OF HIGHLY DOPED BORON SUPERLATTICES", J. Applied Physics, 66 (5), September 1, 1989
		S. A. BARNETT et al, "Si MOLECULAR BEAM EPITAXY: A MODEL FOR TEMPERATURE DEPENDENT INCORPORATION PROBABILITIES AND DEPTH DISTRIBUTIONS OF DOPANTS EXHIBITING STRONG SURFACE SEGREGATION", Depts. Metallurgy, Coordinated Sci. Lab. & Materials Research Lab, October 15, 1984
		K. MORITA et al, "SUPPLY VOLTAGE BY A NOVEL Si INTERBAND TUNNELING DIODE", Central Research Lab, pages 42-43
		K. MORITA et al, "Si INTERBAND TUNNELING DIODE THROUGH A THIN OXIDE WITH A DEGENERATE POLY-Si ELECTRODE", Central Research Lab, pages 175-176, 11/5-7/97
		K. D. HOBART et al, "SURFACE SEGREGATION AND STRUCTURE OF Sb-DOPED Si (100) FILMS GROWN AT LOW TEMPERATURE BY MOLECULAR BEAM EPITAXY", Surface Science 334 (1995) 29-38
EXAMINER		DATE CONSIDERED
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JAC/abs